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**APPLICATION**

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**FOR UNITED STATES LETTERS PATENT**

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**SPECIFICATION**

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TO ALL WHOM IT MAY CONCERN:

25        BE IT KNOWN THAT I, **EARL J. MAC LEOD**, a citizen of  
CANADA, have invented a new and useful **SET OF PROFILED**  
**SANDING PADS** of which the following is a specification:

## SET OF PROFILED SANDING PADS

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### BACKGROUND OF THE INVENTION

#### Field of the Invention

10       The present invention relates to sanding pads and more particularly pertains to a new set of profiled sanding pads for doing bodywork on vehicles and the like where specific areas require sanding attachments that conform to the unique contours encountered.

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#### Description of the Prior Art

20       The use of sanding pads is known in the prior art. More specifically, sanding pads heretofore devised and utilized are known to consist basically of familiar, expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

25       Known prior art includes U.S. Patent No. 4,774,789; U.S. Patent No. 5,345,724; U.S. Patent No. 3,279,130; U.S. Patent No. 5,016,402; U.S. Patent No. 5,743,791; and U.S. Patent No. Des. 355,829.

30       While these devices fulfill their respective, particular objectives and requirements, the aforementioned patents do not disclose a new set of profiled sanding pads. The inventive device

includes a plurality of elongate members, each having a distinctive configuration with a padded sanding side, and a side mountable to an existing sander.

5           In these respects, the set of profiled sanding pads according to the present invention substantially departs from the conventional concepts and designs of the prior art, and in so doing provides an apparatus primarily developed for the purpose of doing bodywork on vehicles and the like where specific areas require sanding  
10   attachments that conform to the unique contours encountered.

### SUMMARY OF THE INVENTION

15           In view of the foregoing disadvantages inherent in the known types of sanding pads now present in the prior art, the present invention provides a new set of profiled sanding pads construction wherein the same can be utilized for doing bodywork on vehicles and the like where specific areas require sanding attachments that conform to the unique contours encountered.

20           The general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new set of profiled sanding pads apparatus and method which has many of the advantages of the sanding pads mentioned heretofore and many  
25   novel features that result in a new set of profiled sanding pads which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art sanding pads, either alone or in any combination thereof.

30           To attain this, the present invention generally comprises a plurality of elongate members, each having a distinctive

configuration with a padded sanding side, and a side mountable to an existing sander.

There has thus been outlined, rather broadly, the more  
5 important features of the invention in order that the detailed  
description thereof that follows may be better understood, and in  
order that the present contribution to the art may be better  
appreciated. There are additional features of the invention that  
will be described hereinafter and which will form the subject matter  
10 of the claims appended hereto.

In this respect, before explaining at least one embodiment of  
the invention in detail, it is to be understood that the invention is  
not limited in its application to the details of construction and to  
15 the arrangements of the components set forth in the following  
description or illustrated in the drawings. The invention is capable  
of other embodiments and of being practiced and carried out in  
various ways. Also, it is to be understood that the phraseology and  
terminology employed herein are for the purpose of description and  
20 should not be regarded as limiting.

As such, those skilled in the art will appreciate that the  
conception, upon which this disclosure is based, may readily be  
utilized as a basis for the designing of other structures, methods  
25 and systems for carrying out the several purposes of the present  
invention. It is important, therefore, that the claims be regarded as  
including such equivalent constructions insofar as they do not  
depart from the spirit and scope of the present invention.

Further, the purpose of the foregoing abstract is to enable the  
30 U.S. Patent and Trademark Office and the public generally, and  
especially the scientists, engineers and practitioners in the art who

are not familiar with patent or legal terms or phraseology, to  
determine quickly from a cursory inspection the nature and essence  
of the technical disclosure of the application. The abstract is  
neither intended to define the invention of the application, which is  
5 measured by the claims, nor is it intended to be limiting as to the  
scope of the invention in any way.

It is therefore an object of the present invention to provide a  
new set of profiled sanding pads apparatus and method which has  
10 many of the advantages of the sanding pads mentioned heretofore  
and many novel features that result in a new set of profiled sanding  
pads which is not anticipated, rendered obvious, suggested, or even  
implied by any of the prior art sanding pads, either alone or in any  
combination thereof.

15 It is another object of the present invention to provide a new  
set of profiled sanding pads which may be easily and efficiently  
manufactured and marketed.

20 It is a further object of the present invention to provide a new  
set of profiled sanding pads which is of a durable and reliable  
construction.

An even further object of the present invention is to provide a  
25 new set of profiled sanding pads which is susceptible of a low cost  
of manufacture with regard to both materials and labor, and which  
accordingly is then susceptible of low prices of sale to the  
consuming public, thereby making such set of profiled sanding pads  
economically available to the buying public.

30 Still yet another object of the present invention is to provide  
a new set of profiled sanding pads which provides in the

apparatuses and methods of the prior art some of the advantages thereof, while simultaneously overcoming some of the disadvantages normally associated therewith.

5           Still another object of the present invention is to provide a new set of profiled sanding pads for doing bodywork on vehicles and the like where specific areas require sanding attachments that conform to the unique contours encountered.

10           Yet another object of the present invention is to provide a new set of profiled sanding pads which includes a plurality of elongate members, each having a distinctive configuration with a padded sanding side, and a side mountable to an existing sander.

15           Still yet another object of the present invention is to provide a new set of profiled sanding pads that are designed for specific areas on various makes and models of vehicles for the sanding process while doing bodywork, thereby increasing the efficiency of the technician.

20           Even still another object of the present invention is to provide a new set of profiled sanding pads that are quickly and easily mountable to existing sanders.

25           These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained  
30 by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

## BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and objects other than  
5 those set forth above will become apparent when consideration is  
given to the following detailed description thereof. Such  
description makes reference to the annexed drawings wherein:

Figure 1 is a schematic side view depicting the existing  
10 sander and one of the sanding pads of a new set of profiled sanding  
pads according to the present invention.

Figure 2a is a schematic end view of the first one of the set of  
sanding pads.

15 Figure 2b is a schematic side view of the first one of the set  
of sanding pads.

Figure 2c is a schematic top view of the first one of the set of  
20 sanding pads.

Figure 3a is a schematic end view of the first one of the set of  
sanding pads.

25 Figure 3b is a schematic side view of the first one of the set  
of sanding pads.

Figure 3c is a schematic top view of the first one of the set of  
sanding pads.

30 Figure 3c is a schematic top view of the first one of the set of  
sanding pads.

Figure 4a is a schematic end view of the first one of the set of sanding pads.

5        Figure 4b is a schematic side view of the first one of the set of sanding pads.

Figure 4c is a schematic top view of the first one of the set of sanding pads.

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Figure 5a is a schematic end view of the first one of the set of sanding pads.

15        Figure 5b is a schematic side view of the first one of the set of sanding pads.

Figure 5c is a schematic top view of the first one of the set of sanding pads.

20        Figure 6a is a schematic end view of the first one of the set of sanding pads.

Figure 6b is a schematic side view of the first one of the set of sanding pads.

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Figure 6c is a schematic top view of the first one of the set of sanding pads.

30        Figure 7a is a schematic end view of the first one of the set of sanding pads.

Figure 7b is a schematic top view of the first one of the set of sanding pads.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

5 With reference now to the drawings, and in particular to Figures 1 through 7 thereof, a new set of profiled sanding pads embodying the principles and concepts of the present invention and generally designated by the reference numeral 10 will be described.

10 As best illustrated in Figures 1 through 7, the set of profiled sanding pads 10 generally comprises a plurality of elongate members 12. Each of the elongate members 12 includes a distinctive configuration.

15 The elongate members 12 include a main member 14. The main member 14 includes a sanding side 16 and a mounting side 18.

The sanding side 16 is for contacting an object to be sanded. The sanding side 16 of the elongate members 12 includes an elastic material 20 that is fixedly coupled to the sanding side 16. The  
20 elastic material 20 is for selectively coupling sandpaper to such that the elastic material 20 provides a buffer between the sanding side 16 of the elongate members 12 and the object being sanded.

The mounting side 18 of the elongate members 12 includes a mounting means 22 for mounting the elongate members 12 to an  
25 existing sander 24. The mounting side 18 is for coupling to the existing sander 24 such that a plurality of objects that have unique forms are thereby sandable.

The main member 14 of a first of the elongate members 25 includes a v-shaped cross section. The cross section is  
30 perpendicular to a longitudinal axis of the first of the elongate members 25.

The first of the elongate members 25 includes a plurality of mounting plates 26. The mounting plates 26 are fixedly coupled to the mounting side 18 of the first of the elongate members 25 such that the cross section of the first of the elongate members 25 and the mounting plates 26 form an isosceles triangle.

The mounting plates 26 include the mounting means 22 for mounting to the existing sander 24.

The sanding side 16 of the first of the elongate members 25 is a side opposite of the mounting side 18.

10 The main member 14 of a second of the elongate members 28 includes an arcuate cross section. The cross section is perpendicular to a longitudinal axis of the second of the elongate members 28.

15 The second of the elongate members 28 includes a plurality of mounting plates 26. The mounting plates 26 are fixedly coupled to the mounting side 18 of the second of the elongate members 28 such that the cross section of the second of the elongate members 28 and the mounting plates 26 is arcuate.

20 The mounting plates 26 include the mounting means 22 for mounting to the existing sander 24.

The sanding side 16 of the second of the elongate members 12 is a side opposite of the mounting side 18.

25 The main member 14 of a third of the elongate members 30 includes a medial section 32, a first side section 34, and a second side section 36. The first and second side sections 34,36 are on opposing sides 37 of the medial section 32, and angle away from the medial section 32 in opposite directions.

The medial section 32 of the main member 14 includes the mounting means 22 for mounting to the existing sander 24.

The sanding side 16 of the third of the elongate members 12 is a side opposite a side the mounting members 40 protrude from for coupling to the existing sander 24.

5 The main member 14 of a fourth of the elongate members 44 includes a medial section 32, a first side section 34, and a second side section 36. The first and second side sections 34,36 are on opposing sides 37 of the medial section 32, and angle away from the medial section 32 in a similar direction such that the obtuse angles 46 between the medial section 32 and the side sections are  
10 substantially equal.

The side sections of the main member 14 include a width that is substantially equal. The medial section 32 of the main member 14 includes a width that is substantially greater than the width of the side sections of the main member 14.

15 The fourth of the elongate members 44 includes a plurality of mounting plates 26. The mounting plates 26 are fixedly coupled to the mounting side 18 of the fourth of the elongate members 44 such that the cross section of the fourth of the elongate members 44 and the mounting plates 26 form a trapezoid.

20 The mounting plates 26 include the mounting means 22 for mounting to the existing sander 24.

The sanding side 16 of the fourth member is a side opposite of the mounting side 18.

25 The main member 14 of a fifth of the elongate members 48 includes a medial section 32, a first side section 34, and a second side section 36. The first and second side sections 34, 36 are on opposing sides 37 of the medial section 32. The side sections angle away from the medial section 32 in a similar direction such that the obtuse angles 46 between the medial section 32 and the side  
30 sections are substantially equal.

The widths of the side sections and the medial section 32 of the main member 14 are substantially equal.

The fifth of the elongate members 48 include a plurality of mounting plates 26. The mounting plates 26 are fixedly coupled to the mounting side 18 of the fifth of the elongate members 48 such that the cross section of the fifth of the elongate members 48 and the mounting plates 26 form a trapezoid.

The mounting plates 26 include the mounting means 22 for mounting to the existing sander 24.

The sanding side 16 of the fifth member is a side opposite of the mounting side 18.

The main member 14 of a sixth of the elongate members 50 includes a u-shaped cross section. The cross section is perpendicular to a longitudinal axis of the sixth of the elongate members 50.

The main member 14 includes a rear section 52, a top section 54, and a front section 56. The width of the rear, top, and front sections 52, 54, 56 are approximately the same.

The rear section 52 includes the mounting means 22. The mounting means 22 protrudes outwardly from a u-shaped channel 59 for selectively coupling to the existing sander 24.

The sanding surface of the main member 14 is located on an inside surface 60 of the u-shaped channel 59 such that the inside surface 60 faces a rear surface 62 of the front section 56. The rear surface 62 is opposite the mounting means 22.

In use, each of the sanding pads is designed for use on a specific vehicle, typically during the body work phase when a body filler has been applied to the vehicle and subsequently needs to be sanded.

The first sanding pad depicted in Fig. 2 is for use on a Chevrolet Blazer, models S-10, and S-15.

5        The second sanding pad depicted in Fig. 3 is for use on older Ford pickups.

10        The third sanding pad depicted in Fig. 4 is for use on 1980 and older Ford pickups for crown lines on the top part of the body lines.

15        The fourth sanding pad depicted in Fig. 5 is for use on 1987 GMC doors and quarter panels.

20        The fifth sanding pad depicted in Fig. 6 is for use on Ford Tempo and Taurus doors and quarter panels.

25        The sixth sanding pad depicted in Fig. 7 is for use on that portion of a pickup cab at the top of the box which faces the rear of the pickup cab.

30        As to a further discussion of the manner of usage and operation of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

35        With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all

equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

- 5           Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable
- 10       modifications and equivalents may be resorted to, falling within the scope of the invention.